

EXHIBIT 38

REDACTED

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**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA**

UNITED STATES OF AMERICA,
et al.,

Plaintiffs,

v.

GOOGLE LLC,

Defendant.

Case No. 1:23-cv-00108-LMB-JFA

**Expert Report of Judith A. Chevalier
January 23, 2024**

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concurrent introduction of UPR and UFPA was associated with a net output expansion and that AdX did not significantly displace sales made by competing exchanges. In sum, Prof. Simcoe's [REDACTED] does not show that AdX's revenue share was excessive.

17. [REDACTED]

[REDACTED] None of those documents constitute an economic analysis, nor do they constitute a reasonable or reliable basis from which to infer a benchmark but-for revenue share for AdX.

18. In **Section V.B**, I describe how Prof Simcoe's [REDACTED]

[REDACTED] Inherent in Prof. Simcoe's [REDACTED]
[REDACTED]
[REDACTED] Relaxing this strong assumption reveals that, [REDACTED]

[REDACTED] Accounting for this variation implies that damages, if any, to some individual advertisers could be quite limited, or even *de minimis*. Furthermore, despite the presence of many other entities in the ad buying process (e.g., agencies, ad-buying tools), Prof. Simcoe and Dr. Respass fail to consider the possibility that [REDACTED]

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exchanges, it is completely unfounded for Prof. Simcoe to conclude that [REDACTED]

[REDACTED].¹⁴²

65. Even if Prof. Simcoe were correct that [REDACTED]

[REDACTED] CPM is a measure of the price paid by advertisers. All else equal, while, for a given impression, a lower CPM is less preferred by publishers, a lower CPM is better for advertisers and, an exchange with low-cost advertising opportunities will attract more advertisers. Further, Plaintiffs are seeking to recover damages on behalf of advertisers, namely the FAAs, not publishers. If it were indeed true that [REDACTED]

[REDACTED], this would, all else equal, benefit the FAAs.

66. Putting aside Prof. Simcoe's flawed logic, his conclusion that his empirical results demonstrate [REDACTED] is also economically flawed. Prof. Simcoe's empirical model consists of a [REDACTED].¹⁴³ A linear regression is a tool for statistical analysis widely used by economists and statisticians.¹⁴⁴ Generally, economists and statisticians use p-values to assess whether the relationships measured in a linear regression model are likely to simply be caused by chance rather than a reliable empirical relationship.¹⁴⁵ A p-value smaller than 0.100 typically implies that a relationship is statistically significant.¹⁴⁶ Prof. Simcoe reports [REDACTED] in his report, but not for this one.¹⁴⁷ Based on Prof.

¹⁴² Simcoe Report, ¶ 87.

¹⁴³ Simcoe Report, Figure 8.

¹⁴⁴ Wooldridge, Jeffrey, *Introductory Econometrics: A Modern Approach*, South-Western Cengage Learning, 2013 (5th Ed.), at p. 22.

¹⁴⁵ Wooldridge, Jeffrey, *Introductory Econometrics: A Modern Approach*, South-Western Cengage Learning, 2013 (5th Ed.), at pp. 133-135.

¹⁴⁶ Wooldridge, Jeffrey, *Introductory Econometrics: A Modern Approach*, South-Western Cengage Learning, 2013 (5th Ed.), at pp. 123-124, 133-135, 138.

¹⁴⁷ See, e.g., Simcoe Report, Figure 16.

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Simcoe's back-up data, I have calculated the p-value for [REDACTED] [REDACTED].¹⁴⁸ The p-value of [REDACTED] is much too high for the results of Prof. Simcoe's regression to be considered statistically significant. As such, this regression with a small number of observations and statistically insignificant results cannot be interpreted as demonstrating [REDACTED] [REDACTED], and thus cannot reliably be used to "predict" an appropriate but-for revenue share for AdX.

67. In addition to the flawed logic and weak results of Prof. Simcoe's [REDACTED] [REDACTED] the empirical results are also quite fragile to modest changes in data and assumptions. Specifically, Prof. Simcoe's conclusion that [REDACTED] [REDACTED] is especially sensitive to his choice to use [REDACTED] [REDACTED]. Given that Plaintiffs seek damages on behalf of the FAAs, which largely focus their advertising on U.S. internet users,¹⁴⁹ the choice to [REDACTED] is puzzling. Turning to U.S. data also allows the inclusion in the analysis of competing exchanges that reported only U.S. data rather than worldwide data in the discovery process. Applying Prof. Simcoe's [REDACTED] [REDACTED] leads to Figure 9 below. In the figure, I show the regression line constructed identically to Prof. Simcoe's, but [REDACTED] and using U.S. revenue shares and CPMs. I show [REDACTED] [REDACTED]. The slope of the estimated relationship between [REDACTED] [REDACTED] [REDACTED] None of the estimated slope coefficients are [REDACTED] [REDACTED]

¹⁴⁸ Simcoe Report Workpapers, Comparables Scatter Plot.xlsx, at tab "comparables_bestfit.xlm." The p-value is calculated using a two-tailed t-test on the coefficient 0.0766, with standard error 0.0738 and 5 degrees of freedom. Wooldridge, Jeffrey, *Introductory Econometrics: A Modern Approach*, South-Western Cengage Learning, 2013 (5th Ed.), at pp. 134-135, 787.

¹⁴⁹ For example, I estimate that, collectively, during the damages period, more than 99.6% of FAA spending through DV360 was targeted at U.S. users. See Workpapers, "us_share_of_faa_spending.csv;" Appendix Exhibit 1.

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Figure 10. Worldwide Average Revenue Shares of Competing Exchanges Considered by Prof. Simcoe (Jan. 2019 – Mar. 2023)

[illegible]

Notes & Sources: Asterisks denote exchanges with an average revenue share that is higher than the weighted average revenue share of ██████████. Average revenue shares for each exchange are calculated based on worldwide transactions over the period from January 2019 – January 2023. Simcoe Report Workpapers are used to process and analyze exchange data. *See also* Exhibit 12.

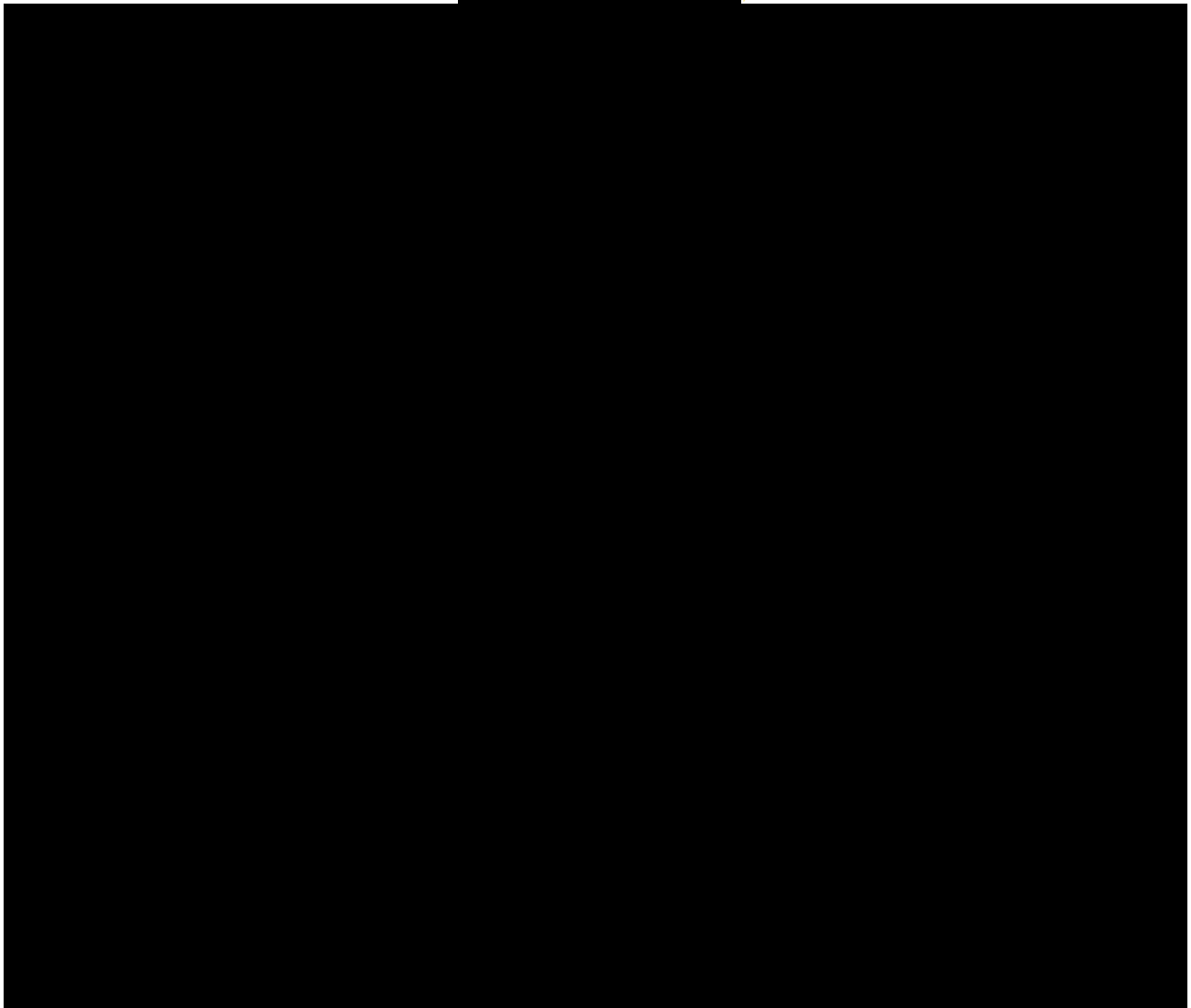
76. Prof. Simcoe has not explained what

Alternatively, to the extent that these competitors were able to maintain their above-average revenue shares without engaging in allegedly anticompetitive conduct, Prof. Simcoe has not explained why [REDACTED]

Prof. Simcoe's failure to provide these explanations invalidates his Comparables Approach. Prof. Simcoe has simply presumed that

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[REDACTED]



113. Figure 18 shows that the same patterns persist when revenues are calculated on a net (rather than gross) basis.

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them, their spending, the prices of the impressions that their ad agencies purchase, their click-through rates, and their advertising strategies. These differences can be correlated with how sensitive the advertiser is to changes in price, which can affect the share of any overcharge borne by the advertiser. In fact, when [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

138. Prof. Simcoe has neither analyzed nor accounted for [REDACTED]

[REDACTED] Consequently, Prof. Simcoe's overcharge apportionment analysis does not [REDACTED]

[REDACTED]

a) The FAAs Differ from the Average Advertiser and Among Themselves in Many Ways

139. The FAAs differ from the average advertiser, and differ among themselves, on a number of dimensions, such as the average AdX revenue share associated with their transactions, their ad spend, the CPM of the impressions that their ad agencies purchase, and their advertising strategies, among others.³¹⁹ As discussed above, the average AdX revenue share associated with the FAA transactions at issue (18.5 percent) is different from the average AdX revenue share associated with non-FAA transactions, even within the same industry. Dr. Respass's Figure 13 reports [REDACTED]

[REDACTED] According to Dr. Respass, [REDACTED]

[REDACTED]

³¹⁹ In addition to the dimensions discussed below, the FAAs primarily target ads to reach U.S. users. For example, collectively, during the damages period, more than 99.6% of FAA spending through DV360 was targeted at U.S. users. See Workpapers, "us_share_of_faa_spending.csv."

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[REDACTED]

[REDACTED]³²⁰ According to Dr. Respass, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]³²²

140. Further, Dr. Respass's Figure 16 shows that [REDACTED]

[REDACTED] According to Dr. Respass's calculations, [REDACTED]

[REDACTED]³²³ In addition, according to Dr. Respass's Figure 16, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]³²⁴

141. Google's buy-side data, [REDACTED]

[REDACTED] show that the FAAs are among the larger advertisers in terms of DV360 spending.³²⁵ On DV360, the spend on the FAAs' behalf considerably exceeds that of the average spending among U.S. advertisers using DV360.³²⁶ As shown in Figure 22, each of the seven FAAs with DV360-to-AdX transactions at issue³²⁷ individually spend substantially more than the

³²⁰ Exhibit 24. Note that in this data, the VA's spending is entirely associated with "Healthcare" while all other FAAs' spending is entirely associated with "Education & Government."

³²¹ Respass Report, Figure 17; Respass Report Errata, Figure 17 (Corrected). Calculated as [REDACTED]

³²² Exhibit 24. Calculated from Respass Report, Figure 13.

³²³ Exhibit 25.

³²⁴ Exhibit 25. Simcoe Report, ¶¶ 254-256, Figure 21, Figure 29. Note that according to Dr. Respass's Figure 16 (Respass Report Errata, Figure 16 (Corrected)), [REDACTED]

[REDACTED] See Exhibit 26.

³²⁵ Note also, that Prof. Simcoe, too, refers to the FAAs as "large advertisers" albeit in more generic terms. See Simcoe Report, ¶ 127.

³²⁶ Exhibit 26. For the purposes of my analyses in Figures 22-26, I use the field advertiser_parent_name to identify advertisers in the data.

³²⁷ The exception is the Navy whose DV360-to-AdX transactions are not among the FAA transactions at issue.

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[REDACTED]

Notes & Sources: From Exhibit 29. [REDACTED]

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[REDACTED]³⁶⁸ By contrast, Prof. Simcoe's simulation estimates [REDACTED]

[REDACTED]³⁶⁹ Advertisers will differ in terms of which publishers they purchase inventory from. As such, accounting for differences among publishers, in addition to differences among advertisers, would likely lead to further dispersion in the range of potential advertiser overcharge shares applicable to any individual advertiser.

158. Prof. Simcoe does not conduct [REDACTED]
[REDACTED] he simply assumes that [REDACTED]
[REDACTED] However, my analysis above reveals that there are material differences across advertisers, which can have a material impact on the share of any AdX overcharge borne by any specific set of advertisers, including the FAAs.

159. Prof. Simcoe points to [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

³⁶⁸ See Exhibits 36, 40 and 43.

Exhibit 36, rows [11]-[15].

See also

³⁶⁹ Simcoe Report, ¶ 315, Figure 21.

³⁷⁰ Simcoe Report, ¶ 246

³⁷¹ Simcoe Report, ¶ 252; Simcoe Report Errata, ¶ 252

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APPENDIX EXHIBIT 11

[REDACTED]

[REDACTED]

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APPENDIX EXHIBIT 11

REPLICATION OF RESPESS APPENDIX D, FIGURE 35
USING ALTERNATIVE BUT-FOR TAKE RATES

Notes & Sources:

[REDACTED]